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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/085,300	02/28/2002	Simon A.J. Holdsworth	GB920010075US1	7533

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EXAMINER	
SALL, EL HADJI MALICK	

ART UNIT	PAPER NUMBER
2157	

DATE MAILED: 04/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/085,300	HOLDSWORTH ET AL.	
	Examiner	Art Unit	
	El Hadji M Sall	2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02/28/02*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. **DETAILED ACTION**

This action is responsive to the application filed on August 27, 2001. Claims 1-20 are pending. Claims 1-20 represent method and system for preserving message order when parallel processing message.

2. Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scheussler et al. U.S. 6,366,950 (referred to hereafter as Sche) in view of Burgess et al. U.S. 5,796,633.

Sche teaches the invention substantially as claimed including system and method for verifying users' identity in a network using e-mail communication.

As to claims 1 and 10, Sche teaches a method and a system for preserving message order when parallel processing messages, comprising:

receiving messages each including a marker for identifying a message source (column 3, lines 40-47, Sche discloses the first computer encloses the identification number to a message, the second computer is to receive the message and to retrieve the identification number from the message (i.e. the identification number is the "marker"));

responsive to receipt of a message, using the marker to identify the source of the message and determining whether it is required to preserve the message order (column 3, lines 40-47, Sche discloses the identification from the message is used to retrieve the identity of the first computer (i.e. "the source of the message)).

Sche fails to teach explicitly dispatching each message in accordance with its marker to one of a plurality of parallel processing threads such that processing order is preserved when required for messages processed through the plurality of parallel processing threads.

However, Burgess teaches method and system for performance monitoring in computer networks. Burgess teaches dispatching each message to one of a plurality of objects (column 4, lines 50-51).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sche in view of Burgess to provide dispatching each message in

accordance with its marker to one of a plurality of parallel processing threads such that processing order is preserved when required for messages processed through the plurality of parallel processing threads. One would be motivated to do so to allow scalability and fault tolerance.

As to claims 2 and 11, Sche teaches the method and the system of claims 1 and 10 wherein the step of dispatching comprises:

retaining a list of all markers of messages that are being processed in parallel (column 14, lines 56-67, Sche discloses the contact list that allows to look up a specific ID number);

determining whether the marker of a new message is present in the list (column 2, lines 40-43, Sche discloses the processing of the identification number and the updating of the identification database is triggered when the message is received); and

delaying initiating parallel processing of the new message until the marker is no longer in the list (column 14, lines 50-67, Sche discloses the internet shop can request a look-up of the client e-mail address to ensure the data of the order is correct, and the identification database permits users to look up other users only by e-mail (the ID or the "marker" does not affect the users' transaction)).

As to claims 3 and 12, Sche teaches the method and the system of claims 2 and 11.

Sche fails to teach explicitly maintaining an ordered queue for each marker that is in the list of messages being processed, and, when message processing by one of the plurality of parallel processing threads completes for a marker, dispatching to said one of the plurality of parallel processing threads the next message in the ordered queue for said marker.

However, Burgess teaches maintaining an ordered queue for each marker that is in the list of messages being processed, and, when message processing by one of the plurality of parallel processing threads completes for a marker, dispatching to said one of the plurality of parallel processing threads the next message in the ordered queue for said marker (figure 9; column 11, line 52 to column 12, line 3, Burgess discloses event queue thread obtains a list of extensions and dispatches data and messages in event queue file).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sche in view of Burgess to provide maintaining an ordered queue for each marker that is in the list of messages being processed, and, when message processing by one of the plurality of parallel processing threads completes for a marker, dispatching to said one of the plurality of parallel processing threads the next message in the ordered queue for said marker. One would be motivated to do so to allow scalability and fault tolerance.

As to claims 4 and 13, Sche teaches the method and the system of claims 1 and 10 wherein a predetermined value of the marker indicates that ordering is not required (column 2, lines 35-37, Sche discloses a client module generates a message including

the identification number, and sends the message over the communication medium (i.e. there was no queuing or "ordering" to send the message, "ordering is not required" to send the message over the communication medium)).

As to claims 5 and 14, Sche teaches the method and the system of claims 1 and 10 wherein the marker is derived from characteristics of the source of the ordered messages (column 2, lines 35-37, Sche discloses the client computer includes a module that generates a message that includes the identification number).

As to claims 6 and 15, Sche teaches the method and the system of claims 5 and 14 wherein the characteristics include at least one of:

an identifier of the user originating the message (column 2, lines 48-52);

an identifier of a repository on which message is put (column 3, lines 64-67);

an identifier associated with a respective input node receiving the message (column 3, lines 46-48, Sche the server is connectable to the communication medium and comprises an identification database); and

an identifier associated with the mode of processing (column 4, lines 1-2, Sche teaches a processor-specific identifier).

As to claims 7 and 16, Sche teaches the method of claim 6 and 15 wherein the characteristics include:

an identifier of the user originating the message (column 2, lines 48-52);

an identifier associated with a respective input node receiving the message (column 3, lines 46-48, Sche the server is connectable to the communication medium and comprises an identification database); and

an identifier associated with the mode of processing (column 4, lines 1-2, Sche teaches a processor-specific identifier).

As to claims 8 and 17, Sche teaches the method and the system of claims 6 and 15 wherein the characteristics include:

an identifier of the user originating the message (column 2, lines 48-52);

an identifier of a repository on which message is put (column 3, lines 64-67); and

an identifier associated with the mode of processing (column 4, lines 1-2, Sche teaches a processor-specific identifier).

As to claims 9 and 18, Sche teaches the method and the system of claims 1 and 10 wherein the marker comprises a hash code (column 5, lines 32, Sche discloses the encoded module included in computer 2 can hash the ID number).

As to claim 19, Sche teaches a computer program element comprising computer program means for performing the method of claim 1 (figure 2).

As to claim 20, Sche teaches a computer program product comprising program code recorded on a machine readable recording medium, for controlling the operation

of a data processing system on which the program code executes, to perform the method of claim 1 (figure 2).

4. Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to El Hadji M Sall whose telephone number is 571-272-4010. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 571-272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-4010.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

El Hadji Sall
Patent Examiner
Art Unit: 2157

SALEH NAJJAR
PRIMARY EXAMINER